

New Mexico State University – Sustainability Course Listing			Spring 2017	Prepared for AASHE STARS report
#	Course #	Title	Focused or Related to Sustainability	Class Description
1	AEEC 575	Advanced Water Resource Management and Policy	F	Focuses on issues, approaches and methods used in the assessment of water resource management and policy problems. Extends and further develops student understanding and comprehension of specific economic concepts and methods that are useful in the assessment and management of water resources, including cost-benefit analysis, welfare economics, non-market valuation, watershed management, and consideration of equity and ethical concerns. Students will develop critical reasoning, communication and analytic skills through active class discussions and assignments that emphasize both quantitative and written
2	AEEC 580	Natural Resources and Environmental Policy	F	Surveys and analyzes natural resource and environmental policy, both domestic and global, in terms of content and context, policy, processes, policy models, levels of government, and values and ethical positions. Includes public lands policies, private property issues, air and water quality, waste disposal, energy and sustainable development with emphasis on natural resources and agriculture.
3	AG E 315V	World Agriculture and Food Problems	F	Survey of food and agricultural issues in the U.S. and other countries. Covers: role of agriculture in economic development; trade in food and agricultural products; global food production, consumption, and marketing patterns; economics of technical change and food assistance; agriculture and the environment. Same as GEOG 315V.
4	AG E 475	Water Resource Management and Policy	F	Emphasis on integrating natural and social sciences, analytic methods, and critical reasoning skills to evaluate water resource policy and management issues. Extensive use of data and numerical applications applied to a variety of water resource topics. Familiarity with MS Excel or similar software is desirable.
5	AG_E 445V	Agricultural Policy	F	Historical and cultural background of food and agricultural policy in the United States. Analysis of food and agricultural problems, policy-making and implementation. Economic evaluation of specific U.S. food and agricultural policy instruments, their domestic and international impacts.
6	Ag_E/ECON 337V	Natural Resource Economics	F	Gain insight into important natural resource problems of our time. Apply economic principles to problems in the preservation, use, and development of agricultural, range, mineral, water, forestry, fishery, and environmental resources. Understand the use of cost-benefit analysis for government natural-resource projects, policies, and programs. Same as ECON 337V.
7	AG_E/ECON 384V	Water Resource Economics	F	Use of economic principles to evaluate current and emerging issues in water resources. Applications focus on use of economic methods of analysis to current policy decisions surrounding agricultural, municipal, industrial, and environmental uses of water.
8	AG_E/FSTE 210G	Survey of Food and Agriculture Issues	F	Survey of food and agricultural issues, including: geography of food production and consumption; human-agricultural-natural resource relations; agriculture in the United States and abroad; modern agribusiness; food safety; food, agriculture, and natural resources policy; ethical questions; role and impact of technology.
9	AG_E/HORT330V	Organic Fall Vegetable Production	F	Planning, planting, and harvesting vegetable crops following federal guidelines for certified organic production. Emphasis on planting fall crops, harvesting summer crops, and planning summer and fall crops. Sale of produce through community-supported agriculture system. Distribution; financial management; and fertility, weed, disease, and insect-pest evaluation and management. Evaluation of crop production and financial performance from previous spring. Same as HORT 330V. Same as HON 430G with additional coursework for Honors students.
10	AG_E/HORT331V	Organic Spring Vegetable Production	F	Planning, planting, and harvesting vegetable crops following federal guidelines for certified organic production. Emphasis on planting spring and summer crops, harvesting spring crops, and planning summer and fall crops. Sale of produce through community-supported agriculture system. Distribution; financial management; and fertility, weed, disease, and insect-pest evaluation and management. Evaluation of crop production and financial performance from previous fall. Same as HORT 331V. Same as HON 430G with additional coursework for Honors students.
11	AGRO 100G	Introduction to Plant Science	R	Introduction to the physical, biological, and chemical principles underlying plant growth and development in managed ecosystems. In the laboratory portion of the class, students perform experiments demonstrating the principles covered in lecture. The course uses economic plants and agriculturally relevant ecosystems to demonstrate basic principles. Appropriate for nonscience majors. Same as HORT 100G.
12	AGRO 250	Plant Propagation	F	Practical methods of propagating horticultural plants by seed, cuttings, layering, grafting, division and tissue culture. Examination of relevant physiological processes involved with successful plant propagation techniques. Crosslisted with HORT 250.

13	AGRO 303	Genetics & Society	F	Relates the science of genetics with social ramifications. Ways in which genetics and evolution interact with social, political, and economic issues. Includes genetic engineering, gene therapy, DNA finger-printing, ancient DNA, plant and animal improvement, and future prospects. Students required to formulate value judgments on contemporary biological issues that will impact society. Crosslisted with: GENE 303V.
14	AGRO 315	Crop Physiology	F	Whole plant physiological processes as related to growth, development, yield, quality and post harvest physiology of crop plants within the environment of the crop community. Crosslisted with: HORT 315
15	AGRO 357	Climatology	F	Elements and controls of climate. Energy and hydrologic cycles, general circulation, climate classification, distribution of climate types, microscale effects, applications.
16	AGRO 365/HORT 365	Principles of Crop Production	F	Basic principles of crop production including environmental and physiological factors limiting production, plant nutrition and soil science, soil-water management, cropping systems and management, pest management, and economic factors influencing crop production. Crosslisted with: HORT 365
17	AGRO 377/HORT 377	Introduction to Turfgrass	R	Establishment and maintenance of turfgrass with emphasis on seeding methods, soil and water management, mowing, disease, insects and turfgrass varieties. Consent of instructor required. Crosslisted with: HORT 377
18	AGRO 462/HORT 462	Plant Breeding	R	Principles and practices involved with the genetic improvement of plants. Same as HORT 462.
19	AGRO 471	Plant Mineral Nutrition	F	Basic and applied aspects of plant requirements for soil-derived minerals and the processes whereby minerals are acquired, absorbed, translocated, and utilized throughout the plant. Same as HORT 471 and EPWS 471.
20	AGRO 483	Sustainable Crop Production	F	Characteristics and objectives of sustainable agricultural systems with application to the production, utilization, and improvement of cereal grain, fiber, forage and oilseed crops. Corequisite(s): AGRO 365 or HORT 365.
21	AGRO 506	Plant Genetics	F	Advanced treatment of the principles of classical genetics and heredity with emphasis on the nature and action of the gene including molecular analysis.
22	AGRO 514	Soil-Plant Relationships	F	Physical, chemical, and biological soil environment as it affects plant and crop growth.
23	AGRO 609	Breeding/Plant Disease Resistance	F	A practically-oriented course of lectures and discussion on concepts and principles of breeding for disease and pest resistance. Labs familiarize students with preparation, quantification, and application of inoculum to hosts. Same as HORT 609.
24	ANSC 200	Introduction to Meat Animal Production	F	Production and utilization of beef cattle, sheep and swine; emphasis on feeding, breeding, management problems and marketing; selection of animals for breeding and market.
25	ANSC 201	Introduction to Genetics for Animal Production	F	Introduction to genetics and inheritance relative to livestock production. Introduction to procedures for collection and use of performance information in livestock improvement programs.
26	ANSC 314	Swine Production	F	Breeding, feeding, and care of swine.
27	ANSC 351V	Agricultural Animals of the World	F	Global study of the development and use of animals for production of food and nonfood products. Climatic, cultural, and economic influences on systems of livestock production and species and breeds of livestock utilized will be evaluated.
28	ANSC 370	Anatomy and Physiology of Farm Animals	F	Structure and function of the animal body. Includes studies of the horse, cow, sheep, pig, and comparisons with the human body.
29	ANSC 402	Animal Science Seminar	F	Review of the current literature in animal sciences. Oral and written reports.
30	ANSC 414	Sheep and Wool Production	F	Genetics, nutrition, physiology and management of sheep. Wool grading, shearing, and disease control.
31	ANSC 415	Horse Science and Management	F	Senior level course requiring students to apply basic knowledge acquired in the prerequisite courses to solve typical problems encountered in the horse industry. Specific topics include genetics and animal breeding, business and legal issues, reproduction, health, nutrition and exercise physiology.
32	ANSC 416	Beef Production	F	Breeding, nutrition, management and marketing of beef cattle.
33	ANSC 417	Dairy Production	F	Breeding, nutrition, physiology and management of dairy cattle.
34	ANSC 421	Physiology of Reproduction	F	Fertility and the role of hormones, nutrition, selection, management and environment in the maintenance of high reproductive rate.
35	ANSC 480	Environmental Physiology of Domestic Animals	F	Influence of environmental factors on physiological processes of domestic animals.
36	ANSC 509	Endocrinology of Domestic Animals	F	The role of hormones in growth, development, metabolism, temperature regulation, lactation, and reproduction of domestic animals, including commercial
37	ANSC 521	Advanced Nutritional Management II: Cow Calf/Stocker	F	Emphasis on nutritional management for cow-calf and stocker operations. Primary focus on applications to range animal nutrition and management.
38	ANTH 120G	Human Ancestors	R	Evolutionary history of the human species from its origin in the primate order, with primary emphasis on the evolution of humankind during the past three million years. Examination of the social lives of apes and consideration of similarities to and differences from them. Biological foundations of human behavior, emphasizing thought, movement, and interaction.
39	ANTH 125G	Introduction to World Cultures	R	Examine cross-cultural diversity and human universals through the lens of anthropological inquiry. Explore human thought and behavior in contemporary world cultures covering kinship, economic patterns, power structures, and religious practices and beliefs. The impact of cultural influence on everyday life is emphasized.

40	ANTH 130G	Human's Place in Nature: Introduction to Biological Anthropology	F	This course uses scientific methods and principles to examine human evolutionary history and family tree relationships, as well as the biological foundations of human behavior. Through lectures, readings and laboratory assignments students are introduced to the history and development of modern evolutionary biology, molecular and population genetics, the primate and human fossil record and modern human biological diversity. By examining the social lives of apes and other primates, primitive and unique aspects of human behavior are identified and the lives of fossil ancestors are reconstructed. Corequisite: ANTH 130GL.
41	ANTH 130GL	Human's Place in Nature Laboratory	F	This one credit laboratory course uses scientific methods and principles to examine evidence for human evolutionary history and family tree relationships, primate ecology and behavior, and modern human diversity.
42	ANTH 201G	Introduction to Anthropology	R	Exploration of human origins and the development of cultural diversity. Topics include biological and cultural evolution, the structure and functions of social institutions, belief systems, language and culture, human-environmental relationships, methods of prehistoric and contemporary cultural analysis, and theories of culture.
43	ANTH 301	Cultural Anthropology	R	Human concepts of culture and life processes.
44	ANTH 306V	Peoples of Latin America	R	Introduction to cultural patterns and diversity of Latin America with emphasis on indigenous groups, peasants, plantation workers, and urban residents throughout South America, the Caribbean, Mexico, and Central America.
45	ANTH 313	Ancient Mexico	R	Archaeological evidence of culture change among the Aztecs, Zapotecs, and their predecessors in Central Mexico and Oaxaca from 7,000 BC to the Spanish Conquest.
46	ANTH 315	Introduction to Archaeology	R	Concepts and methods for study of prehistoric cultures; history of archaeological research.
47	ANTH 355	Physical Anthropology	R	An introduction to primate behavior, human evolution, and physical variation in modern human populations.
48	ANTH 357V	Medical Anthropology	R	This course introduces students to evolutionary, ecological, interpretive, political-economic, and applied anthropological perspectives on health, illness, and healing to address some of the major questions in the field. How do humans adapt to changing environments that bring with them new illnesses and diseases? How do anthropologists understand the multiple meanings of health and illness cross-culturally? How can anthropologists effectively study health inequalities? What can medical anthropological perspectives contribute to addressing the health issues that we face in our current global context?
49	ANTH 360V	Food and Culture Around the World	F	Study of the interaction between food and human culture from an anthropological perspective. Examines the traditional role of food in local economies, social relations, and identity around the world. Also examines the impact of globalization on traditional food systems and cultures.
50	ANTH 361V	Social Issues in the Rural Americas	F	Discussion of major social issues in the rural United States and Latin America. Topics include social history, cultural groups, land tenure, irrigation, government policy, markets, and agricultural labor. Same as SOC 361V.
51	ANTH 362	Environmental Anthropology	F	This course examines ecology and current environmental studies from an anthropological point of view. The class focuses on how cultural values mediate environmental management. The class will cover topics such as theoretical foundations of ecological anthropology, large scale development, biodiversity conservation, sustainable environmental management, indigenous groups, consumption and globalization.
52	ANTH 404	Cultures of Africa	R	Explores the rich history and cultural diversity of the continent of Africa. The course first examines the historical processes that shaped modern Africa, including the evolution of modern humans in Africa, the origins of agriculture and pastoralism, the formation of indigenous African states, the slave trade, and European colonialism. The course also looks at contemporary African societies, including hunter-gatherer, pastoral, and farming/fishing peoples. In addition, contemporary issues facing modern Africa such as famine and agricultural policy, the status of women, and environmental challenges such as deforestation are discussed.
53	ANTH 415	Applied Anthropology	F	Examines the intellectual roots of applied anthropology and early case studies of anthropologists working as administrators. Examines the ethical and methodological approaches that applied anthropologists employ. Examination of case studies that show role of applied anthropologists in improving human service delivery, cultural preservation, planning and implementing programs of participatory change, advocacy, and economic development. Taught with ANTH
54	ANTH 431	Nutritional Anthropology	R	Evolutionary and cross-cultural perspective on human nutrition.
55	ANTH 434	Human Evolution	R	Overview of human biological evolution from the emergence of Miocene apes to modern human diaspora.
56	ANTH 434L	Human Evolution Laboratory	R	Laboratory in human evolution, includes exercises and activities to learn the human fossil record.
57	ANTH 459/HIST 459	Peru: From Incas to Inca Kola	R	Explores issues of cultural and national identity in Peru from the Incas to the present, focusing on the modern period. Themes include indigenous resistance and adaptation to colonial rule, nationalism, militarism, terrorism, globalization, and the drug trade.
58	ANTH 467	Archaeology of the American Southwest	R	Description and analysis of prehistoric archaeology of the American Southwest including paleo-environmental reconstruction, culture change, and relations with contemporary cultures.

59	ANTH 472	Primate Behavior and Ecology	F	Survey of the social behavior and ecology of nonhuman primates.
60	ANTH 535	Economic Anthropology	F	Study of the theoretical development, major topics, and current theoretical concerns in economic anthropology. Anthropological analysis of economic systems, from subsistence economies to the impact of international market systems.
61	ANTH 536	Anthropology of Development	F	The study of global processes of social and economic change, and their impact on non-Western societies.
62	ANTH 538	Plants, Culture, and Sustainable Development	F	Study of role of indigenous cultures and indigenous knowledge systems in plant domestication, ethnoecology, and preservation of traditional crop diversity. Examination of issues related to conserving cultural diversity, food systems, food security and biodiversity.
63	ANTH 539	Culture and Foodways	F	Study of interaction between food and culture from anthropological perspective. Study of role of food in cultural history, social relations, ritual, and identity. Examination of impact of globalization of food systems on traditional cultures, local food systems, and food security.
64	ANTH 540	Cultural Resource Management I	F	Study of federal and state of New Mexico historic preservation laws and regulations and their application in current Cultural Resource Management and a review of relevant case studies.
65	ANTH 542	Cultural Resource Management II	F	Continuation of ANTH 540 to include the study of cultural resource management practices, research design, and completion of proposals in response to requests. Overview of management practices and budgeting of projects and specialized studies (geophysical investigations, National Register nominations).
66	ANTH 572	Advanced Primate Behavior and Ecology	F	Advanced review of non-human primate social behavior and ecology. Crosslisted with: BIOL 572.
67	ANTH 577	Faunal Analysis	R	Detailed study and analysis of taphonomic processes affecting animal bone recovered from archaeological and paleontological contexts.
68	AXED 201G	Effective Leadership and Communication in Agricultural Organizations	F	Theory and practice in leadership and communication for professionals who must work effectively in leadership and supervisory roles with people in agricultural business, industry, government agencies, and education. Course focuses on contemporary leadership theories. Oral communication skills in informative and persuasive speaking, parliamentary procedure, and for small groups are developed.
69	AXED 348	Advanced Technology in the Agricultural Industry	F	Application of technology in agricultural industry that includes solar energy, irrigation techniques, computer-aided drafting, laser leveling, TIG welding, and water quality and agricultural waste management.
70	AXED 400/500	The Diffusion and Adoption of Agricultural Innovations	F	Factors that influence the rates of diffusion and adoption of innovations. Consequences of adopting or rejecting innovations. Processes by which change agents influence introduction and adoption of innovations. Same as AXED 500.
71	AXED 436/536	Keys for Agricultural and Rural Development	F	Introduction to concepts of development, the process of change, key factors that contribute to agricultural and rural development in a community, and strategies employed to effect change with implications for international students or domestic students planning to work internationally.
72	AXED 466V	John Muir: Lessons in Sustainability	F	This course examines the life of John Muir in the context of sustainability. Muir was a farmer, inventor, explorer, botanist, glaciologist, conservationist, and noted nature author. He was influential in the National Parks movement and in starting the Sierra Club. Living in the natural world influences his faith and philosophy. By examining his life and the themes that shaped it, students will develop an understanding of what it means to live sustainably and to contribute beyond their personal lives to a sustainable past.
73	AXED 475/575	Leadership on Agricultural and Natural Resource Issues	F	Investigates leadership concepts and group dynamics as they relate to a changing world and complex agricultural and natural resource issues. Topics include emotional intelligence, leading change, political leadership, facilitating agreement, team building, and managing conflict in agricultural and natural resource settings.
74	AXED 565	New Mexico Water Issues	F	Designed for agricultural and natural resource professionals who must educate others or provide leadership on complex water issues in New Mexico. Students will travel to four distinct geographic and cultural regions of the state and study water policies, issues, and delivery technologies in each region. Specific areas covered will be determined by resource professionals who will present past, current and future issues involved in the distribution of water. Urban impacts on water use will also be investigated.
75	AXED 589	The Role of Technology Transfer and Social Change in Development Settings	F	An interdisciplinary study of the international significance of technology and of the societal and human issues related to its development and adoption. Analysis of the role of science and technology in development; agents of technology transfer, such as NGOs and multinational corporations; issues and constraints in choosing an appropriate technology.
76	BCT 217	Building and the Environment	F	Introduction to LEED and Green Building Fundamentals, sustainability, sustainable design and green building evaluating cost implication of green building. Describes site development; managing site water runoff, improving a project's water use efficiency. Discusses renewable energy sources, and introduces student to generating power on-site using renewable energy sources, improving a building's indoor environment quality, improving the building industries' environmental performance and environmental aspects of building maintenance, re-use and conservation.

77	BIOL 101G	Human Biology	F	Introduction to modern biological concepts. Emphasis on relevance to humans and their relationships with their environment. Cannot be taken for credit after successful completion of BIOL 111G or BIOL 211G. Appropriate for non-science majors. Requires successful completion of BIOL 101GL in order to meet the NM Common Core Area III Laboratory Science requirements.
78	BIOL 101GL	Human Biology Laboratory	F	Laboratory for BIOL 101G. Laboratory experiences and activities exploring biological concepts and their relevance to humans and their relationship with their environment.
79	BIOL 110G	Contemporary Problems in Biology	R	Fundamental concepts of biology will be presented using examples from relevant problems in ecology, medicine and genetics. For nonscience majors only. Community Colleges only.
80	BIOL 111G	Natural History of Life	F	Survey of major processes and events in the genetics, evolution, and ecology of microbes, plants and animals, and their interactions with the environment. Appropriate for science and nonscience majors. Must be taken with BIOL 111L to meet general education requirements.
81	BIOL 111GL	Natural History of Life Laboratory	F	Laboratory experiments, demonstrations and exercises on interrelationships among organisms, biodiversity, processes of evolution, and interaction of organisms and their environment. Appropriate for science and nonscience majors.
82	BIOL 301	Principles of Ecology	F	A survey of ecology including general theory, the adaptations of organisms, population dynamics, species interactions, and the structure and function of natural communities and ecosystems.
83	BIOL 314	Plant Physiology	F	Photosynthesis, respiration, water relation of plants, minerals and organic nutrition, growth and development.
84	BIOL 381	Animal Physiology	F	Principles of integrative function in animals, emphasizing tissues, organs, organ systems, and regulation. Includes adaptations of animals to their environments.
85	BIOL 408	Ecology of Plants	F	Controlling factors, succession, community dynamics, and the classification of vegetation.
86	BIOL 439	Animal Behavior	R	A survey of the field of animal behavior.
87	BIOL 445	Herpetology	R	The ecology, behavior, systematics, morphology, and conservation of amphibians and reptiles. Field trip recommended.
88	BIOL 447	Ornithology	R	Morphology, life histories, systematics, ecology, and behavior of birds.
89	BIOL 454	Biology of Respiration	F	How aquatic and terrestrial animals obtain oxygen and dispose of carbon dioxide. Includes respiratory-system structures and functions, gas-exchange and gas-transport mechanisms, and control systems. Emphasizes animals that live or travel in extreme environments.
90	BIOL 462	Conservation Biology	F	Examination of the value of biological diversity, the natural processes that control biological diversity, and the ways in which human activities have resulted in the loss of biological diversity, both regionally and globally.
91	BIOL 465	Invertebrate Zoology	R	Survey, ecology, behavior and physiology.
92	BIOL 470	Developmental Biology	R	The purpose of this course is to introduce students to the principles that govern the development of a single fertilized egg cell into a complex multicellular organism. These principles, and often the molecular mechanisms by which they are accomplished, appear to be universal for all multicellular organisms including both plants and animals.
93	BIOL 473	Ecology of Microorganisms	F	The metabolic interactions of microorganisms in the environment, with emphasis on their roles in ecological processes.
94	BIOL 477	Applied and Environmental Microbiology	F	A lecture-laboratory course on the microorganisms and the reactions they mediate which either impact the environment or have industrial applications. Reading of current literature will be emphasized. Topics include bioremediation, water quality, and aspects of industrial and food microbiology.
95	BIOL 488	Principles of Conservation Genetics	F	Fundamentals of the genetics of small populations. Genetic technologies used in studying small populations. Application of genetics and evolution to the conservation of biological populations.
96	BIOL 517	Seminar in Physiological Ecology	F	Discussion of original research literature on the physiological responses of organisms and their adaptive value in ecological settings. Examples of plants, animals, and microbes as suited to student interest.
97	BIOL 533	Environmental Physiology of Plants	F	Integral responses of plants and crop productivity to naturally occurring and modified environmental factors such as radiation, temperatures, water vapor, carbon dioxide, and air flow.
98	BIOL 540	Science and Ethics	F	Ethical concerns facing researchers in the basic and applied biological sciences. Coverage of responsible conduct in research including scientific integrity and research misconduct, mentor/trainee responsibilities, data management, authorship, publication practices, human subjects, animal welfare, intellectual property, conflicts of interest and effort and collaborative science. Emphasis on ethical reasoning skills.
99	BIOL 552	Landscape Ecology	F	Basic concepts, terminology and methodology of Landscape Ecology. Landscape ecology is a relatively new approach to the study of landscape level ecology and, as such, is replete with new terminology and techniques, often incorporates modern tools such as remote sensing and geographic information systems, and has an ever growing body of literature.
100	BIOL 567	Individuals and Populations	F	Study of ecological systems at the levels of the individual and population. Topics include physiological responses of individuals to their environment, life history theory, and spatially-explicit models of population and metapopulation dynamics.

101	BIOL 568	Communities and Ecosystems	F	Study of ecological systems at the levels of the community and ecosystem. Topics include species interactions, community structure and dynamics, and flow of material and energy through ecosystems.
102	BIOL 569	Evolutionary Ecology	F	Overview of current knowledge and modern research into ecological adaptation, evolutionary processes acting on contemporary populations, and the consequences of natural selection for population and community processes.
103	BIOL 570	Ecological Biogeography	F	Survey of modern theory incorporating ecological mechanisms governing distribution and abundance of species over space and time.
104	BLAW 316	Legal Environment of Business	R	Survey of business law including: the legal system (court systems, sources and types of law, litigation and dispute resolution), ethics and corporate social responsibility, administrative law, tort law, contract law, agency and employment law, business structure and governance, securities regulations, and international law.
105	BMGT 270	Urban Development and Renewal	F	This course describes the basic functions and considerations for planners and developers when undertaking urban development and renewal projects. Attention is given to environmental, social, and economic factors. Consent of instructor required. Restricted to: Community Colleges only.
106	BMGT 278	Sustainable Real Estate Development	F	The awareness of environmental and economic sustainability in project development and planning is an important aspect of the developer's role in the 21st century. The ability to design projects that consider multiple stakeholders and address environmental concerns is addressed in this course.
107	BMGT 281	Introduction to International Business Management	R	Overview of the social, economic and cultural environment of international business transactions.
108	C E 141	Mathematics and Hydraulic Engineering	R	A combination of physical, mathematical, and computer simulation models will be developed to explore topics in hydraulic engineering that are central to environmental engineering applications.
109	C E 356	Fundamentals of Environmental Engineering	F	Introduction to water treatment and water pollution and the analysis and design of selected treatment processes.
110	C E 485	Design of Earth Dams	R	Engineering design applied to site selection, foundation inspection and treatment, hydrology and hydraulics, stability, and seepage analysis. Economic and environmental factors.
111	CE 355V	Technology and the Global Environment	F	A scientific basis for understanding changes in the global environment that result through the complex interactions of natural phenomena and the impacts of the activities of man.
112	C_EP 110G	Human Growth and Behavior	R	Introduction to the principles of human growth and development throughout the life span.
113	C J 426	Race and Environmental Justice	F	Analysis of concepts of justice and social justice responses across the 20th and 21st centuries to environmental degradation affecting communities of differing racial and ethnic backgrounds.
114	C S 484	Computer Networks I	F	Fundamental concepts of computer communication networks: layered network architecture, network components, protocol stack and service. Example of application, transport, network and data link layers, protocols primarily drawn from the Internet (TCP, UDP, and IP) protocol multimedia networks; network management and security.
115	C S 584	Computer Networks II	F	Advanced topics in computer networks. Covers advanced topics in networking, with emphasis on wireless, and IP networks.
116	CHEM 110G	Principles and Applications of Chemistry	R	A survey of the properties and uses of the elements and their compounds. In addition to classical chemistry, attention is paid to the materials from which consumer products are made, to the production of energy, and to environmental considerations.
117	CHEM 422	Environmental Chemistry	F	Chemistry of organic and metal ion pollutants in the environment and principles important to their remediation including bioremediation.
118	CHEM 472	Analytical Methods for Toxic Organics and Metal Ions in the Environment	F	Laboratory course with lectures on principles of analytical techniques related to environmental monitoring of pollutants and waste management.
119	CHME 361	Engineering Materials	R	Bonding and crystal structure of simple materials. Electrical and mechanical properties of materials. Phase diagrams and heat treatment. Corrosion and environmental effects. Application of concepts to metal alloys, ceramics, polymers, and composites. Selection of materials for engineering design.
120	CHME 471	Health Physics	F	Introduction to radiation protection, radiation/radioactivity, radioactive decay/fission, interactions of radiation and matter, biological effects of radiation, radiation measurement and statistics, sampling for radiation protection, radiation dosimetry, environmental transport, radiation protection guidance, external and internal radiation protection, and hazards analysis.
121	CHME 474	Power Plant Design	R	Principles of electric power generation. Review of DC and AC systems, energy sources, and prime movers. Analysis of hydroelectric, fossil fuel, nuclear, and alternative power systems. Environmental and economic considerations.
122	CHSS 101	Overview of Health and Community Services	R	Health and community service professions with emphasis on public health, community health education, and environmental/occupational health.
123	COMM 253G	Public Speaking	R	Principles of effective public speaking, with emphasis on preparing and delivering well-organized, logical, and persuasive arguments adapted to different audiences.
124	COMM 491	Environmental Communication	F	Individual and/or group study of selected topics. To be identified by subtitle.

125	COMM 477	Environmental Communication		Examines the link between communication and environment within the context of communication scholarship. Topics include sense of place, cultural approaches to interacting with environment as well as exploring current themes surrounding environment.
126	E S 110G	Introduction to Environmental Science	F	Introduction to environmental science as related to the protection, remediation, and sustainability of land, air, water, and food resources. Emphasis on the use of the scientific method and critical thinking skills in understanding environmental
127	E S 256	Environmental Science	F	Principles in environmental engineering and science: physical chemical systems and biological processes as applied to pollution control.
128	E S 256L	Environmental Science Laboratory	F	Laboratory experiments associated with the material presented in E S 256.
129	E S 301	Principles of Ecology	F	A survey of ecology including general theory, the adaptations of organisms, population dynamics, species interactions, and the structure and function of natural communities and ecosystems.
130	E S 312	Emergency Response to Hazardous Material Incidents	R	EPA approved Environmental Response Training Program Course 165.15. In compliance with OSHA 29 CFR 1910.120.
131	E S 330	Environmental Management Seminar I	F	Survey of practical and new developments in environmental management field, hazardous and radioactive, waste management, energy, water, and related health issues, provided through a series of guest lectures and reports about on-going research.
132	E S 370	Environmental Soil Science	F	Continuation of SOIL 252 that emphasizes soil properties and processes that directly relate to environmental pollution problems.
133	E S 422	Environmental Chemistry	F	Chemistry of organic and metal ion pollutants in the environment and principles important to their remediation including bioremediation.
134	E S 423	Environmental Toxicology	F	Toxicological tests required by the EPA to determine human and environmental safety of pesticides and industrial pollutants; discussion of environmental fate of major pesticide classes and industrial pollutants. Crosslisted with: TOX 423
135	E S 430	Environmental Management Seminar II	F	Survey of practical and new developments in environmental management field, hazardous and radioactive, waste management, and related health issues, provided through a series of guest lectures and reports of ongoing research.
136	E S 452	Geohydrology	F	Origin, occurrence, and movement of fluids in porous media and assessment of aquifer characteristics. Development and conservation of ground water resources, design of well fields.
137	E S 460	Introduction to Air Pollution	F	An introduction to the physics and chemistry of tropospheric air pollution including sources of air pollution, local and long-range transport, instrumentation, regulatory requirements, control technology.
138	E S 462	Sampling and Analysis of Environmental Contaminants	F	Theory, application, methodology, and instrumentation used in the sampling and analysis of environmental contaminants.
139	E S 470	Environmental Impacts of Land Use	F	The course will cover the integrated assessment of soil erosion, contaminant transport in soil and water, and contaminant remediation from site scale to watershed scales. Understanding of the controlling factors for each type land use impact will be gained through the use of risk assessment, case studies, and computer modeling. Case studies will illustrate the processes under various environmental applications.
140	E S 477	Soil Physics	F	A description of the physical characteristics of porous media including soil. Examination of processes describing the transport of water, chemicals, heat and gases through porous media with application to environmental quality, waste management, and crop production.
141	E S 477L	Soil Physics Laboratory	F	Concurrent enrollment with SOIL 477 recommended. Hands on experience with techniques for characterizing soil physical properties such as particle size distribution, bulk density, water retention, hydraulic conductivity and solute transport. Demonstrations of field and laboratory techniques for measuring moisture content, soil water potential, gas/air flow and thermal conductivity.
142	E S 652	Advanced Soil Physics	F	Advanced treatment of soil physics, modeling, includes working on an existing/new research project, modeling existing or new data, step by step guide on the use of some 1-D and 2-D models. Specific areas of specialization will be field scale variability of soil properties, water flow, solute transport, and plant water relations.
143	E S 655	Contaminant Transport	F	Provides clear coverage of the basic principles of heat, moisture and contaminant transport through porous media, and a step-by-step guidance and hands on application on the use of some spreadsheet based and physically based one-and two-dimensional transport models. A similar course does not exist in the college for students that can encourage them to pursue modeling as a means of solving vadose zone and groundwater contamination and remediation problems. Consent of instructor required.
144	E T 115	Introduction to Environmental Technology	R	Provides an introduction to the fields of environmental science and environmental engineering. Includes engineering aspects of current environmental issues and the effects of pollution on local, state, national and worldwide scales. Required for all advanced hazardous materials courses.
145	E T 128	Fundamentals of Sustainable Construction	F	Sustainable building materials, methods, and techniques including green architecture and design, codes, standards and specifications.
146	E T 255	Applied Industrial Hygiene and Safety	R	Introduction to Linux system administration.
147	E T 304	Electrical Machines	F	DC motors and generators, single and polyphase AC motors and generators, special motor types.
148	E T 309V	Manufacturing: History and Technology	F	The history of manufacturing, the technology on which it is based, and its impact on society.

149	E T 321	Environmental Engineering and Science	F	Introduction to physical, chemical, and biological processes in water purification and treatment. Wastewater collection, treatment, disposal and reuse.
150	E T 360V	Technology in Business and Society	R	Examination of how technology affects business and society with specific attention to understanding the role of technical personnel and their interaction with nontechnical personnel.
151	E T 365	Building Utilities	F	Basic design and code applications in plumbing and electrical systems for buildings.
152	E T 374	Electric Power Distribution	F	Balanced and unbalanced loads for three-phase systems. Transformer and transmission line technology, circuit protection and interrupting devices.
153	E T 381	Renewable Energy Technologies	F	Renewable energy systems, including topics in thermal-solar, photovoltaic, wind, geothermal systems, and other current topics. Theory, practical applications, safety considerations and the economics of alternative renewable energy systems compared to conventional systems.
154	E T 382	Solar Energy	F	Solar energy technologies, including topics in passive, solar thermal, and photovoltaic systems. Theory, practical applications, safety considerations and the economics of solar renewable energy systems compared to conventional systems.
155	E T 384	Wind and Water Energy	F	Wind and Water energy technologies, including topics in small and large scale systems. Theory, practical applications, safety considerations and the economics of wind and water renewable energy systems compared to conventional systems.
156	E T 386	Sustainable Design and Construction	F	Sustainable Building materials, methods, and techniques including green architecture and design, codes, standards and specifications.
157	E T 396	Heat Transfer and Applications	F	Fundamentals of conduction, convection, and radiation heat transfer. Application of heat transfer, thermodynamics, and fluid mechanics principles to thermal system analysis and design.
158	E T 420	Senior Internship (relevant to renewable energy projects)	F	Internship requiring an approved number of hours of varied and progressive experience in the field of study. The scope and other requirements of the internship are stated in an individualized syllabus and through a memorandum of understanding between the faculty mentor and the industry partner.
159	E T 435	Senior Design and Project Management (relevant to renewable energy projects)	F	Capstone course. Practical application of student s cumulative knowledge to assigned design projects that require implementation of standards analysis techniques and design principles, teamwork, and project management skills. Stresses importance of codes, standards, and economics in design practice.
160	E T 440/441	Senior Design and Senior Project (relevant to renewable energy projects)	F	Team design of a system, mechanism, or model that will be fabricated or simulated during the following semester in E T 441.
161	E T/ME 401	Heating and Air Conditioning Systems	F	HVAC system design including heating and cooling load calculations, psychometrics, piping, duct layout, and system control.
162	ECDV 671	Sustainable Economic Development	F	Focuses on the interconnections between economic development and the environment. Provides a broad set of tools and ideas related to the impacts of human activities on the environment.
163	ECED 125	Health Safety and Nutrition	R	This course provides information related to standards and practices that promote children's physical and mental well being sound nutritional practices, and maintenance of safe learning environments.
164	ECON 324V	Developing Nations	F	Economic analysis of problems related to development of developing nations. Issues such as growth, industrialization, poverty, population, international trade, foreign debt, and international economic relations.
165	ECON 325V	Economic Development in Latin America	F	Economic analysis of problems related to development in Latin America, including the agrarian problem, debt and austerity programs, industrialization, inflation and unemployment, the drug trade, U.S.-Latin American relations, development strategies. Also individual countries problems.
166	ECON 350	Current Economic Issues	R	Contemporary American socio-economic problems related to technology, environment, employment, economic security, and income distribution. Content changes as issues change.
167	ECON 432V	Economics of Health Care	R	Analysis of the allocation of resources in the field of health and medical care.
168	EDUC 161	Project Wild	F	A supplemental, interdisciplinary instructional program for teachers of K-12 students. A way for teachers to incorporate concepts related to people, wildlife and a healthy environment into all major school subject and skill areas. Emphasizes lively, hands-on, diverse and instructionally sound educational activities.
169	EDUC 162	Project WET	F	Project WET (Water Education for Teachers), an international, interdisciplinary, water science and education program for formal and non-formal educators of K-12 student. Facilitates and promotes awareness, appreciation, knowledge, and stewardship of water resources through the development and dissemination of classroom ready teaching aids based on the Project WET Curriculum and Activity Guide, a collection of over 90 innovative, interdisciplinary activities that are hands-on, easy to use and fun.
170	EDUC 163	Project Learning Tree	F	An award winning environmental education program for teachers and other educators of students PK-12. Uses the forest as a window to the world to increase students understanding of our complex environment; stimulate critical and creative thinking; develop the ability to make informed decisions on environmental issues; and instill the confidence and commitment to take responsible action. Includes activities that help teach science, mathematics, English, language arts, social studies history, visual and performing arts.
171	ENGL 111G	Rhetoric and Composition	R	Skills and methods used in writing university-level essays. Environmental projects are a part of this class; manager of Office of Sustainability a guest lecturer.
172	ENGL 462/562	Interdisciplinary, Client-Based Project Practicum	R	Hands-on experience in designing projects within interdisciplinary teams for organizational clients.



173	ENVE 456	Environmental Engineering Design	F	Design of chemical, physical and biological operations and processes involved in water and wastewater treatment.
174	ENVE 487	Air Pollution Control Systems Design	F	An introduction to sources and nature of air pollution, regulations, and risk analysis. Detailed study of air pollution control technologies and design of air pollution control equipment.
175	EPWS 100	Introduction to Pest Management	F	Introduction to applied biology and ecology focusing on insects, plants and pathogens in natural areas, crops and urban settings. EPWS 100L is strongly recommended to take in the same semester.
176	EPWS 301	Agricultural Biotechnology	F	The principles of molecular biology will be introduced and used to explore the past, present, and future applications of biotechnology in agriculture. Specific topics include methodologies for making transgenic plants with increased pest resistance, the use of biotechnology in pest detection, and improving nutritional value. The laboratory will provide students with hands-on experience with equipment used for biotechnology research.
177	EPWS 303	Economic Ecology	F	Identification and life cycles of insects of economic significance, their relationship to humans and agriculture including biological interactions and controls.
178	EPWS 310	Plant Pathology	F	Causes and methods of prevention and treatment of diseases in plants.
179	EPWS 311/511	Weed Science	F	Principles of weed science, with emphasis on characteristics of invasive plants, methods of integrated weed management, and current issues impacting weed management. Identification of local weeds.
180	EPWS 325V	Humans, Insects, and the Environment	F	Overview of the interactions of the world's largest group of organisms with humans. Emphasizing the role of insects in the development of human cultures, including health, food and fiber production, art, music, and environmental issues; with discussions of historic, present day, and future impacts in underdeveloped, developing, and developed civilizations.
181	EPWS 373	Fungal Biology	R	Introduction to the taxonomy, morphology, physiology, and ecology of fungi.
182	EPWS 380V	Ecosystem Earth: The Impact of Human Activities	F	Analysis and evaluation of how human activities affect the earth's environment or ecosystems. Several examples, from global issues to local issues will be studied in detail. Current science and the intersection of science and public policy will be discussed in relation to problems like world population, agricultural productivity, deforestation, medical advances, and future prospects for the environment.
183	EPWS 420	Environmental Fate of Pesticides	F	Behavior of pesticide compounds in the environment, their function toward target and non target pest organisms including humans, effect of environmental conditions on pesticide function, ecology of organisms involved in pesticides degradation, overview of environmental regulation. CHEM 211 recommended prior
184	EPWS 435	Aquatic and Immature Insects	R	Life histories, adaptations, ecology, and identification of immature insects, with emphasis on aquatics.
185	EPWS 452	Applied Pesticide Toxicology	F	Classification, mode of action, and use of insecticides and related pesticides.
186	EPWS 455/505	Advanced Insect Pest Management	F	Examination of factors affecting the biology and ecology, population evaluations, and control of insect, disease, and weed pests with an emphasis on integrating management practices. Credit cannot be given for both EPWS 455 and EPWS 505.
187	EPWS 456/506	Biological Control	F	Principles of plant and animal suppression using living organisms. Interaction of biological control organisms with biotic and abiotic factors will be stressed.
188	EPWS 462	Parasitology	F	Introduction to classification, biology, ecology and management of the major parasites of human, domestic animals and wildlife.
189	EPWS 462 L	Parasitology Lab		Methods of collecting and identifying the major parasites of humans, domestic animals and wildlife. Concurrent enrollment in EPWS 462 is desirable.
190	EPWS 481	Nematology	F	Biology, ecology and basic identification of soil-inhabiting nematodes, with emphasis on host-parasite relationships and management principles for plant-parasitic genera.
191	FIRE 202	Wildland Fire Control	F	Focuses on factors affecting wildland fire control and prevention, fire behavior, control techniques, command structure and other operations including Standards for Survival I-100, S-130 and S-190 Meets or exceeds NWCG Training Curriculum and NFPA 1051 standards.
192	FIRE 205	Fire Chemistry	R	Theories of combustion and extinguishment, including the analysis of flammable materials, the nature of extinguishing agents, and the properties of matter affecting fire behavior.
193	FIRE 216	Hazardous Materials Chemistry	R	This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.
194	FIRE 217	Operations in the Wildland Urban Interface	F	Provides training for initial attack incident commanders and company officers confronting wildfire presenting a threat to life and property. Instructional units include: size-up, initial strategy and action plan, structure triage, tactics, action plan, assessment, public relations and follow up, and safety. Presented in a classroom environment. Instructed in accordance to NWCG standards.
195	FSTE 164G	Introduction to Food Science Technology	R	An introductory course in the scientific study of the nature and composition of foods and their behavior during all aspects of their conversion from raw materials to consumer food products.
196	FWCE 110	Intro to Nat. Res. Management	F	This class covers historical and current issues affecting the management of renewable natural resources with an emphasis on water, soil, rangeland, forest, fish, and wildlife resources. An emphasis is placed on the scientific method and critical thinking. In the laboratory students collect and analyze field data on topics covered above and write up each unit as a laboratory report.

197	FWCE 255	Principles of Fish and Wildlife Mgmt	F	Basic principles of fish and wildlife management including history, ecology, economics, and policy. Emphasis on wildlife and fisheries. Uses an ecosystem approach integrating living and nonliving resources.
198	FWCE 301	Wildlife Ecology	F	General ecological theory with emphasis on concepts including biogeography, species interactions, population dynamics and disease ecology as they relate to the management and conservation of vertebrates.
199	FWCE 323	Rangeland Restoration Ecology	F	Principles and practices of vegetation management and ecological restoration. Course emphasizes problems associated with rangeland degradation, and implementation of rangeland restoration and improvements.
200	FWCE 359	Adv Studies in Fishery and Wildlife Sciences	R	Preparation for competing in the Western Regional Quiz Bowl.
201	FWCE 360	Introduction to Wildlife Behavior	F	Behavior of wild vertebrates and management implications. Topics include social organization, marking, territoriality, environmental influences, mother-offspring relationships, and field procedures.
202	FWCE 409	Population Ecology	F	Quantitative analysis of vital statistics and mechanisms affecting dynamics of wild populations. Patterns of growth, age structure, survival, and natality. Population theories and life tables.
203	FWCE 430	Avian Field Ecology	F	Principles of avian ecology and management with an emphasis on taxonomy, physiology, behavior and field studies. Includes weekly field trips focusing on identification and behavior of Southwestern birds.
204	FWCE 432	Environmental Biology of Fishes	R	What makes a fish, a fish. Mechanisms of circulation, gas exchange, osmotic and ionic regulation, swimming, migration, reproduction, and chemoreception. Taught with FWCE 532.
205	FWCE 434	Aquatic Contaminants & Toxicology	F	Basic principles and methodologies of aquatic toxicity testing. Routes of exposure and modes of action. Environmental legislation and ecological risk assessment. Taught with FWCE 534.
206	FWCE 437	Wildlife Damage Management	F	Introduction to basic need and appropriate methods for resolving human-wildlife conflicts and management of animal damage. Socioeconomic, ecological, and political factors. Field trips required. Taught with FWCE 537.
207	FWCE 455	Environmental Risks and Decisions	F	Risk assessment and decision analysis in the context of environmental and conservation issues. Concepts of risk perception and uncertainty; precautionary principle; the roles of experts and stakeholders; the use of conceptual and probabilistic models in risk assessment.
208	FWCE 457	Ecological Biometry	F	Use of ecological data to test scientific hypotheses. Stochastic and statistical models for environmental data, data visualization, likelihood-based and information based model selection. Emphasis on open-source software tools.
209	FWCE 458	Ecology of Inland Waters	F	Functions of plant and animal communities in aquatic ecosystems; emphasis on regulation of community structure and productivity. Field trips required.
210	FWCE 459	Aquatic Ecology	F	Plant and animal communities in aquatic ecosystems with emphasis on chemical and physical properties, productivity, species interactions, population dynamics, and concepts for diagnosing problems and restoring aquatic ecosystems.
211	FWCE 462	Conservation Biology	F	An examination of the patterns of biological diversity, the processes that generate and maintain it, as well as the forces that are eroding it. Aspects will include the value of biodiversity, factors driving extinction, national and international law and policy.
212	FWCE 464	Mgmt of Aquatic and Terrestrial Systems	F	Principles and methods for managing aquatic and terrestrial ecosystems and their fish and wildlife resources. Emphasis on quantitative techniques, data collection and analysis for management of systems at a landscape spatial scale.
213	FWCE 466	Adv Management of Mammals	F	Ecological principles, production and harvest, habitat management, and techniques of mammal management.
214	FWCE 488	Conservation Genetics	F	Application of evolutionary theory and biotechnologies used in conservation of populations including concepts in population structure, gene flow, inbreeding, hybridization, and forensics.
215	FWCE 536	Adv Avian Ecology	F	Focuses on current topics and literature in avian ecology including systematics, mating systems, behavior, physiology, movement patterns and conservation. Includes required overnight field trips.
216	GEOG 110	The Biosphere and the Lithosphere	F	Introduction to physical forces that shape the environment: unique spatial characteristics of flora and fauna; soil development and classification; geomorphic processes and landform development.
217	GEOG 111G	Geography of the Natural Environment	F	Introduction to the physical processes that shape the human environment: climate and weather, vegetation dynamics and distribution, soil development and classification, and geomorphic processes and landform development.
218	GEOG 112G	World Regional Geography	F	Overview of the physical geography, natural resources, cultural landscapes, and current problems of the world's major regions. Students will also examine current events at a variety of geographic scales.
219	GEOG 120G	Culture and Environment	F	Study of human-environmental relationships: how the earth works and how cultures impact or conserve nature. Introduction to relationships between people and natural resources, ecosystems, global climate change, pollution, and
220	GEOG 257	Introduction to Weather Science	F	Introduction to Earth's atmosphere and the dynamic world of weather as it happens. Working with current meteorological data delivered via the Internet and coordinated with learning investigations keyed to the current weather; and via study of select archives.

221	GEOG 259	Introduction to Oceanography	R	Introduces the origin and development of the ocean and marine ecological concepts. Examines physical processes such as waves, tides, and currents and their impact on shorelines, the ocean floor, and basins. Investigates physical processes as they relate to oceanographic concepts. Includes media via the Internet and laboratory examination of current oceanic data as an alternative to the actual oceanic experience. Students will gain a basic knowledge and appreciation of the ocean's impact on the world's ecology.
222	GEOG 295	Introduction to Climate Science	F	Examines fundamentals and related issues of Earth's climate system, climate variability, and climate change. Develops solid understandings of Earth's climate system framed in the dynamic, Earth system based approach to the science.
223	GEOG 315V	World Agriculture and Food Problems	F	Survey of food and agricultural issues in the U.S. and other countries. Covers: role of agriculture in economic development; trade in food and agricultural products; global food production, consumption, and marketing patterns; economics of technical change and food assistance; agriculture and the environment.
224	GEOG 326	U.S. National Parks	F	Exploration of origins, landscapes, ecosystems, management issues, and conflicts in U.S. National Parks. The regional geography of the United States as seen through the creation and protection of biologically and culturally significant lands.
225	GEOG 328V	Geography of Latin America	R	Explores Latin America from a geographical perspective, integrating environmental, cultural and socioeconomic factors in an in-depth study of the development of the region and contemporary issues and challenges facing the region.
226	GEOG 331V	Europe	R	Focus on the cultural continent of Europe, from Iceland to the Ural Mountains and from Archangel, Russia., to Malta. An overview of climate, geology, topography, soils, and vegetation, as well as a brief historical geography of the continent. Current environmental, social, and political issues of Europe will be discussed. A series of regional studies is also offered.
227	GEOG 340V	Planet Earth	R	Formation and evolution of the Earth. Plate tectonics, volcanoes and earthquakes. Role of geological processes in the origin and evolution of life. Uniqueness of the Earth in the solar system.
228	GEOG 351	Fundamentals of Biogeography	F	Floristic and physiognomic characteristics of the Earth's major ecosystems and their distributions; ecosystem dynamics, evolution, and physical environment; field and laboratory techniques including remote sensing. Taught with GEOG 557.
229	GEOG 353	Geomorphology	F	Examination of the principle theories and concepts of landform creation; exploration of the roles of structure, processes, climate, and time in the formation of various types of landforms. Taught with GEOG 553.
230	GEOG 361V	Economic Geography	F	The geographic relationships of supply and demand resources, population, and transportation. Site analysis and decision-making in different economic systems and cultures and how these decisions affect the environment and the location of economic activities.
231	GEOG 363V	Cultural Geography	F	The world's diverse cultural landscapes. Emphasis on the connections between social, political, religious, and agricultural patterns and the impact of societies on the natural environment.
232	GEOG 365V	Urban Geography	F	The global historical development of urban areas, as well as the changing functions of today's cities. A comparison between the North American city system and cities in Europe, Asia, and South America, including the development of the city form, the internal spatial organization of commercial, residential, and industrial areas, and socio-economic and political factors.
233	GEOG 373	Introduction to Remote Sensing	R	Introduction to the theory, techniques, and applications of remote sensing. Topics include electromagnetic radiation; remote sensing systems; remote sensing of the biosphere, hydrosphere, atmosphere, lithosphere, and cultural landscapes. Course includes lectures and also labs focused on the basic analysis and interpretation of remote sensing products. Taught with GEOG 573. May be repeated up to 4 credits.
234	GEOG 381	Cartography and GIS	R	Design and construction of thematic maps. Introduction to cartographic principles in lecture. Emphasis on map-making using GIS software in the labs.
235	GEOG 382	Aerial Photo Interpretation	R	Introduction to use and analysis of aerial photographs. Emphasis on physical features and cultural patterns.
236	GEOG 452	Landscape Ecology	F	Analysis of the structure, function and change of natural and anthropogenic landscapes. Patches, corridors, matrix and network, spatial organization, landscape dynamics, and role of disturbance in overall functioning of landscapes.
237	GEOG 461	US Mexico Border Development	F	Analysis of the socioeconomic development of the U.S.-Mexican border region, including perspectives and issues from both sides of the border. Opportunities for individualized study of contemporary issues in the region.
238	GEOG 467	Transportation Geography	R	Nature and distribution of land, air and water transport facilities and their importance in regional development.
239	GEOG 481	Fundamentals of Geographic Information Systems	R	Fundamentals of computer-based systems which organize, analyze, and present spatially referenced data.
240	GEOG 482	Geodatabase Design	R	A practical introduction to designing geodatabases. The course takes you through the eleven steps of geodatabase design divided into four stages: thematic characterization; developing the database elements, relationships and properties; capture and collection; and finally, implementation and documentation.
241	GEOG 483	Field Explorations in Geography	R	A field-based class where students complete exercises in physical, human, and environmental geography in the Southwest. May be offered as a two-week intensive class where students are away from Las Cruces and camping; or may be offered with weekend field trips depending on the instructor. A lab fee for transportation and other expenses is required. Taught with GEOG 583.

242	GEOG 487	GIS and Capstone	R	A capstone course in geospatial analysis. Demonstration of competence in the use of geospatial tools, techniques, and concepts for the solution of applied geographic problems. Software may change from semester to semester.
243	GEOG 491	Southwestern Environments	F	Specific subjects to be announced in the Schedule of Classes. May be repeated for a maximum of 12 credits. Consent of instructor required.
244	GEOG 492	GIS Applications and Modeling	R	Group oriented class in which students conduct an applied research project in GIS application or modeling area of choice and conduct focused library research.
245	GEOL 111G	Survey of Geology	F	Covers the fundamental principles of physical geology, including the origin of minerals and rocks, geologic time, rock deformation, and plate tectonics.
246	GEOL 212G	The Dynamic Earth	F	Introduction to earth systems. Geology and the solid earth, geologic time and earth history, water and the world oceans, atmosphere and weather, the solar system.
247	GEOL 305V	Fossils and the Evolution of Life	F	Examination of the fossil record within the context of geologic time. Special emphasis on critical evaluation of possible terrestrial and extra-terrestrial causes for the evolution of plants and animals and for periods of mass extinction.
248	GEOL 315V	The Geology of National Parks	F	The geologic features in national parks of the United States and the processes responsible for their formation.
249	GEOL 335V	Earthquakes, Volcanos, Hurricanes and Floods: The Role of Natural Hazards in Civilizations Past and Present	F	This class will provide an introduction to geologic hazards and natural disasters, their effects on society and the attempts at preparation and mitigation for these events. Hazards to be covered include earthquakes, volcanic eruptions, floods, landslides, hurricanes, tsunamis and others.
250	GEOL 476	Marine Paleoecology	F	Paleontological and sediment logic analysis of the fossil marine record to reconstruct past ecosystems by interpreting the life habits of past organisms, their association in communities and their relationship to the environments in which they lived.
251	GERO 456	Biological Aspects of Aging	R	Aging, the developmental process of the body determined by cellular changes influenced by lifestyle, genetics, and environment. Investigates these changes, how health promotion influences them, and when they are considered a disease.
252	GOVT 150G	American Political Issues	R	Major contemporary problems of American society and their political implications.
253	GOVT 160G	International Political Issues	R	Current developments and issues in world politics.
254	GOVT 324	Environmental Policy	F	This introductory course explores environmental policy issues. Students study perspectives of policy-makers, political activists and policy analysts, and apply policy models to solve pressing environmental problems.
255	GOVT 380V	Contemporary World Political Ideologies	R	Introduction to the prevailing political ideologies in the modern world and the ways in which modern nations operating under one or more of these ideologies attempt to answer fundamental questions about the allocation and distribution of rights, liberties, and other things of value. In addition, the course work and discussions attempt to address recent political, social, and economic events in various areas of the world.
256	GOVT 384	Contemporary Political Theory	F	Examination of major currents in political theory from early twentieth century to the present. Includes positivism, fascism, neo-liberalism, and varieties of postmodernism.
257	GOVT 396/596	International Law	R	Nature, growth, and scope of law of nations, rights and obligations of states in peace and war, current issues.
258	GOVT 399	New Mexico Law	R	New Mexico legal system, court structure and procedures; legal terms and concepts; constitutional, criminal, mass media, historical and social issues relating to New Mexico.
259	GOVT 411	Service Learning Experience	F	Experiential learning through a community service project. May be subtitled to reflect service activity.
260	GOVT 469/569	Globalization	F	Analysis of the globalization process. Covers theories of globalization, the global economy, political globalization, global culture, transnational social movements, transnational migration and world labor market, global cities, and local-global linkages.
261	GOVT 537	Environmental Policy	F	Selected issues in public policy. May be repeated under a different subtitle for a total of 6 credits.
262	HIST 303V	History of Technology	R	The development of technology, its impact on society and culture, and the social and ideological responses to the technological change from earliest times to the present.
263	HIST 313/415	Making the American West	R	Development of the American West from 1803 to 1900 with emphasis on conquest, federal and corporate roles in western development, environmental change, and the Mythic West.
264	HIST 344	Colonial America	R	Traces social, economic, environmental, and political dimensions of European settlement of North America.
265	HIST 401	Environmental History	F	Seminar discusses how the natural environment and people have shaped each other, and how people have perceived and imagined the natural world. May focus upon one specific topic or area.
266	HIST 429	Plague, Plunder, and Preservation: American Environmental	F	Explores how the natural environment influenced human actions, decisions, and cultural and social development from the colonial period to the present; how people reshaped and reordered the natural environment; and how people perceived or imagined the natural world.
267	HIST 483	Historic Preservation	F	Study of community development, the historic preservation movement, and the built environment. Field project.
268	HIST 508	Environmental History	F	Seminar discusses how the natural environment and people have shaped each other, and how people have perceived and imagined the natural world. May focus upon one specific topic or area.

269	HON 205G	Life, Energy, and Evolution	F	Principles of modern biological science with discussion on the impact of this science in today's world. Selected topics include principles of metabolism, genetics, physiology, evolution, and ecology.
270	HON 219G	Earth, Time, and Life	F	Covers how the earth's materials form, processes involved in changing the earth's configuration, and extent of people's dependence upon the earth's resources. Includes mineral and energy resources, development of landscapes, environmental problems, evolution of the earth and life forms.
271	HON 225G	History of Ethics	R	A critical examination of questions with respect to the meaning and justification of moral judgments and principles. Provides a basic preparation for serious study of contemporary moral problems.
272	HON 233G	Social Problems	R	Introduction to contemporary social problems from multiple perspectives. Discussions of definition, impact, and prospective solutions to major social issues, such as crime, drug abuse, social inequality, family, population, environment, and social change.
273	HON 235G	The World of Anthropology	R	Anthropology is the most humanistic of the sciences, and the most scientific of the humanities. This course will use anthropological perspectives to examine the human experience from our earliest origins, through the experiences of contemporary societies. We will gain insights into the influence of both culture and biology on shaping our shared human universals, and on the many ways in which human groups are diverse.
274	HON 237G	Archaeology: Search for the Past	R	A critical evaluation of various approaches to understanding prehistory and history. The methods and theories of legitimate archaeology are contrasted with fantastic claims that invoke extraterrestrials, global catastrophes, transoceanic voyages, and extra-sensory perception.
275	HON 248G	The Citizen and the State: Great Political Issues	R	The fundamental questions of politics: why and how political societies are organized, what values they express, and how well they satisfy those normative goals and the differing conceptions of citizenship, representation, and freedom.
276	HON 301V	Mass Media and Society	R	Introduction to the characteristics of mass media and their integration and impact on a global society.
277	HON 305V	Global Environment	F	Covers global environmental problems with focus on causes and possible solutions.
278	HON 306V	Science, Ethics, and Society	F	Investigation of the ethical issues related to scientific investigation and the ethical implications of scientific discoveries for society. Emphasis on discussion of case studies about specific ethical issues in science, and readings by both scientists and non-scientists.
279	HON 308V	Into the Final Frontier	R	Exploration of space; a brief review of the history of space flight, the Apollo program, joint U.S.-Soviet space missions, and unstaffed exploration of the planets. Emphasis on knowledge gained through these efforts. Includes new space initiatives.
280	HON 320V	Food and Humanity: World in Crisis	F	In spite of great advances in food production technology, famines affecting millions continue to occur in the world. Focus on the interrelationship between food production, hunger, and population growth. Covers brief introduction to the culture history and geography of food production; the dynamics of population growth and the prospects of control; the evolution and structure of the American food system, the politics of food, the development of technology, and the impacts of natural resource and environmental issues.
281	HON 321V	Agriculture in an Urban World	F	Study of the impact of agriculture on cultural and social systems, with special emphasis on twentieth century urban development.
282	HON 322V	Science and Public Policy	R	Explores the interaction between science and public policy. Introduces process of science with explicit development of its power and limitations. Statistical inference, cause and effect, and chaotic processes. Economic impacts of public policies and current issues of agricultural and environmental policies.
283	HON 330V	Planetary Exploration	R	Study of basic scientific goals and engineering constraints associated with planetary exploration missions with consideration of historical context as well as political, economic factors.
284	HON 335V	Legal Issues in Modern Society	R	Case study approach to contemporary legal problems involving environment, consumer protection, international law, corporate responsibility.
285	HON 346V	Perspectives on Violence	R	Social construction of violence, its impact on especially urban communities, and strategies to disarm it.
286	HON 360V	Working in Teams	R	How to productively work in teams. Emphasizes skills of effective team members: problem solving and decision making, communicating, managing conflict, developing appropriate norms, leading and influencing others, understanding group
287	HON 363	Indigenous Ways	R	This course draws from an array of literature across numerous academic disciplines that are written from, about, and for the purpose of providing a way of knowing the world from an Indigenous/Tribal worldview. Students will gain a greater appreciation of the Indigenous paradigm as they approach their respective fields of study, and will learn to recognize the interrelated relationships between the Western Scientific and Indigenous/Tribal worldviews.
288	HON 378V	Technology and Policy	F	Study of the processes through which society sets goals for science and technology, of the allocation of resources needed to achieve these goals, and of the obligations and conflicts that develop as the goals are realized. International comparisons of public policies.
289	HON 380V	Comparative Economic Systems	R	A global comparison of economic institutions and problems.

290	HON 384V	Ethical Decisions in Organizations	R	Examines ethical decisions in business, non-profit, and governmental organizations from a managerial perspective. Topics include ethical principles, recognition and application of principle-based ethics, stakeholders in ethical decisions, and analysis of the consistency between organizational decisions and ethical principles.
291	HON 430V	OASIS: Managing a Community Supported Farm	F	Explores the principles, doctrines, and texts governing the legal relations between the United States and Indian tribes, the history of federal Indian law and policy, tribal property, treaty rights and sovereignty, congressional plenary power, the trust doctrine, jurisdiction in Indian country, and tribal government. Topics specifically examined in the course include tribal lawmaking powers, gaming and economic development in Indian country, protection of Indian religious rights and cultural property, water rights, fishing, hunting and other treaty-based rights.
292	HON 450V	Sundt Seminar	R	The Sundt Honors Seminar is a unique, experience-based, interdisciplinary seminar developed and taught by the holder of the Sundt Honors Professorship for the year. The subject of the course will vary according to the discipline of the Sundt Professor. The course may include a travel experience related to the seminar topic, hosting of outside specialists, or other unique activity. Open to students by application. Students selected for the course are named Sundt Scholars.
293	HORT 100G	Introduction to Plant Science	R	Introduction to the physical, biological, and chemical principles underlying plant growth and development in managed ecosystems. In the laboratory portion of the class, students perform experiments demonstrating the principles covered in lecture. The course uses economic plants and agriculturally relevant ecosystems to demonstrate basic principles.
294	HORT 110	Sport Turf Management	R	Survey of proper management of athletic fields, golf courses and other turfgrass stands. Career opportunities in athletic field and golf course management will be discussed. Course includes field trips to local and regional sports turf facilities.
295	HORT 205	Introduction to Horticulture	R	Principles and practices of horticulture. Basic chemical, physical, and biological principles that govern plant growth in different environments. Economics of plant science as related to the field of horticulture. Online course entirely. Intended for non-majors.
296	HORT 210	Ornamental Plants I	R	Covers identification, botanical characteristics, culture, and landscape uses of woody plants. Emphasis on deciduous trees, native shrubs, and evergreens.
297	HORT 211	Ornamental Plants II	R	Identification, botanical characteristics, culture, and landscape uses of woody plants. Emphasis on flowering trees, cacti, and members of the pea and rose families.
298	HORT 250	Plant Propagation	R	Practical methods of propagating horticultural plants by seed, cuttings, layering, grafting, division and tissue culture. Examination of relevant physiological processes involved with successful plant propagation techniques.
299	HORT 301	Introduction to Landscape Horticulture	F	Overview of landscape horticulture including identification and use of selected ornamental plant material and the principles of landscape design, construction, and maintenance.
300	HORT/REGSC 302V	Forestry and Society	F	Global study of the development and use of forest resources for production of wood, fuel, fiber, and food products. Climatic, edaphic, cultural, and economic influences on forests of the world evaluated.
301	HORT 307	Landscape Design	F	Design elements, the design process, and contemporary planting design used in the design of residential and small commercial landscapes. Basic drafting, drawing, and landscape plan presentation techniques.
302	HORT 308	Landscape Construction	F	Site grading, drainage, and construction of residential and small business landscapes. Landscape material use, cost estimating, and the introduction to material specifications.
303	HORT 315/515	Crop Physiology	F	Whole plant physiological processes as related to growth, development, yield, quality and post harvest physiology of crop plants within the environment of the crop community.
304	HORT 330V	Organic Fall Vegetable Production	F	Planning, planting, and harvesting vegetable crops following federal guidelines for certified organic production. Emphasis on planting fall crops, harvesting summer crops, and planning summer and fall crops. Sale of produce through community-supported agriculture system. Distribution; financial management; and fertility, weed, disease, and insect-pest evaluation and management. Evaluation of crop production and financial performance from previous spring. Same as HON 430G with additional coursework for Honors students.
305	HORT 331V	Organic Spring Vegetable Production	F	Planning, planting, and harvesting vegetable crops following federal guidelines for certified organic production. Emphasis on planting spring and summer crops, harvesting spring crops, and planning summer and fall crops. Sale of produce through community-supported agriculture system. Distribution; financial management; and fertility, weed, disease, and insect-pest evaluation and management. Evaluation of crop production and financial performance from previous fall.
306	HORT 378	Turfgrass Science	R	Introduction to the scientific fundamentals for turfgrass management cultural practices, pest management, rootzone construction and ecology.
307	HORT 465	Landscape Construction and Maintenance	F	Application of landscape design and construction principles to build and maintain residential, small commercial and selected public managed landscapes.
308	HORT 471	Plant Mineral Nutrition	R	Basic and applied aspects of plant requirements for soil-derived minerals and the processes whereby minerals are acquired, absorbed, translocated, and utilized throughout the plant.

309	HORT 479	Advanced Turfgrass Science	R	Extensive reviews of turfgrass sciences including ecology, physiology, entomology, pathology, weed science, and soil science.
310	HORT 484	Ornamental Plant Production & Management	R	Covers the principles and practices of greenhouse and nursery crop production and management. Greenhouse irrigation and water quality, fertilization, containers and media, lighting, CO2 enrichment, growth control, and crop scheduling.
311	HORT 485	Vegetable Crop Management	F	Physiological, environmental and cultural aspects of vegetable crop production.
312	HORT 488	Greenhouse Management	F	Principles and practices involved in greenhouse structures and construction, site considerations, covering materials, heating and cooling systems, greenhouse crop production techniques, and case studies.
313	HORT 533	Environmental Physiology of Plants	F	Integral responses of plants and crop productivity to naturally occurring and modified environmental factors such as radiation, temperatures, water vapor, carbon dioxide, and air flow.
314	HORT 685	Plant Genetic Engineering	F	Analysis of plant genome structure and potential applications of emerging molecular techniques to the genetic improvement of plants.
315	HRTM 201	Introduction to Tourism	R	Overview of hospitality industry; organization and operation of lodging, food and beverage, and travel and tourism segments; focus on career opportunities and future trends of hospitality industry.
316	HRTM 430	Hospitality Facilities Management	F	Exploration of the engineering and maintenance requirements specific to the hospitality industry. Emphasis on environmental issues, renovation and management of the physical plant.
317	I E 477	Ergonomics in Manufacturing Systems	F	Ergonomic analysis applied to manufacturing engineering environment. Covers: task analysis, workplace assessment and design, computer-integrated manufacturing, and legal/regulatory issues in manufacturing task and workplace design.
318	JOUR 105G	Media and Society	R	Functions and organization of the mass media system in the United States; power of the mass media to affect knowledge, opinions, and social values; and the impact of new technologies.
319	JOUR 377V	Mass Media Ethics	R	Philosophical and moral examination of problems relating to mass media. Use of case study method to analyze media situations; development of framework for media professionalism.
320	M E 481	Alternative and Renewable Energy	F	Current and future energy needs of the US and the world will be considered primarily from the standpoint of renewable energy sources such as solar, wind, ocean, and biomass. Technical, economic, and environmental aspects of each technology will be addressed.
321	MGT 375V	Global Environmental Assessment and Management	F	Examines the principles of environmental assessment and management. Topics include global environmental concerns, industrial environmental management, life cycle assessment, system analysis, process improvement, and sustainable development, among others.
322	MGT 448	Small Business Consulting	F	Study, analysis, and presentation of recommendations for solving significant problems confronting businesses. Includes environmentally related projects.
323	MGT 449	Strategic Management	R	Integrative approach to envisioning the future and shaping strategies for business success. Includes environmentally related projects.
324	MGT 458	International Management	R	Cultural influences on management are examined in a global business environment with a particular emphasis on human behavior in multinational organizations and the management of human resources.
325	MGT 465	Contemporary Issues in Human Resource Management	R	Integrative course in human resources management, emphasizing the application of advanced concepts to complex personnel cases.
326	MGT 490	Independent Study in Sustainability Management	F	Seminars in selected current topics in the various areas of management and administration.
327	MGT 590	Strategic Management	R	Covers the integration of functional, human, technological, and environmental aspects of business within the framework of management policy and strategy formulation. Formulate, implement, evaluate and control the various functions of the organization from a systems perspective. Understand the external environment and its impact on the organization.
328	MGT 685	Storytelling Consulting Doctoral Seminar	R	Apply various qualitative story and narrative research methods (plot analysis, script analysis, life history, and restoring) to action research consulting project. Students will conduct story assessment and (propose or enact) intervention with a local consenting organization. Restricted to doctoral students. Includes environmentally related projects.
329	MGT 690	Independent Study in Sustainability Management	F	Seminars in selected current topics in the various areas of management. May be repeated for unlimited credit. Restricted to doctoral students.
330	MKTG 311V	Consumer Behavior	R	The different aspects of consumer behavior and the variables affecting consumer decisions. Analysis of current concepts and models.
331	MKTG 489	Strategic Marketing Decisionmaking	F	Techniques and analysis of marketing strategy and policy planning and formulation. Includes strategy and policy; includes environmentally related projects
332	MSW 523	Advanced Social Work Practice with Organizations and Communities	F	This course will address the knowledge, values and skills needed to work effectively with diverse populations in group settings. The course will build on Foundation Year courses (MSW 520 and 521) by integrating theory and practice, and advancing skills in selecting, applying and evaluating practice interventions in a culturally sensitive manner with social work groups.
333	OETS 101	Energy for the Next Generation	F	This course will survey a broad range of sources of energy, types of energy, energy storage, and the forms of energy. Students will be exposed to theory in the classroom, laboratory exercises, and field trips to provide them with a solid foundation for all subsequent energy related environmental courses.

334	PE P 363	Theory and Technique of Lifelong Outdoor Leisure Activities	R	Knowledge and skills related to lifelong outdoor leisure activities, including the examination of environmental science and awareness, kinesiology, and fundamental motor skills.
335	PHIL 322	Environmental Ethics	F	Explores the ethical and topical issues raised by mining and grazing, air and water pollution, factory farming, global warming, and treatment of animals. It also studies some recent ecological movements such as ecofeminism, social ecology, and deep ecology.
336	PHIL 323V	Engineering Ethics	R	The moral legal responsibilities of engineers to clients, employers, the public, and the environment. Topics include criteria for judging when risk is acceptable, the duty to safeguard public health and welfare, conflicts of interest, and whistle-
337	PHLS 150G	Personal Health and Wellness	R	An holistic and multi-disciplinary approach towards promoting positive lifestyles. Special emphasis is placed on major problems that have greatest significance to personal and community health. Topics to include nutrition, stress management, fitness, aging, sexuality, drug education, and others.
338	PHLS 305V	Global Environmental Health Issues	F	Introduction to global environmental health challenges in the 21st century with an emphasis on environmental problems as they affect public health and personal well-being.
339	PHLS 452	Environmental Health	F	Introduction to environmental health designed to address public health issues.
340	PHLS 454	Environmental Epidemiology	F	Covers thematic and research aspects, as well as methodological issues related to environmental health and epidemiology, along with international and national priorities.
341	PHLS 461	Health Disparities: Determinants and Interventions	F	Investigates: descriptions of health disparities and measurement issues; physical environmental factors, behavioral and emotional variables; impact of aging of the populations, increased racial and ethnic diversity, and technological developments; intervention strategies and evaluation results.
342	PHLS 464V	Cross-Cultural Aspects of Health	R	An examination of health practices from a variety of cultural perspectives: communication, observation, research, and assimilation. Issues to be addressed will be examined from a number of viewpoints, such as individual, family, community, and professional roles.
343	PHYS 110G	The Great Ideas of Physics	F	Conceptual, quantitative, and laboratory treatments of the great ideas and discoveries that have influenced lives and changed perceptions of nature, from Johannes Kepler's laws of planetary motion and Isaac Newton's and Albert Einstein's laws of motion and gravity to the modern concepts of the quantal structure of nature and the big bang universe.
344	PHYS 221G	General Physics for Life Sciences I	R	This algebra-based introduction to general physics covers mechanics, waves, sound, and heat. Special emphasis is given to applications in the life sciences. This course is recommended for students in the life sciences and those preparing for the physics part of the MCAT.
345	PHYS 221GL	General Physics for Life Sciences I	R	Laboratory experiments in topics associated with material presented in PHYS 221G.
346	PHYS 222G	General Physics for Life Sciences II	R	This algebra-based course covers electricity, magnetism, light, atomic physics, and radioactivity. Special emphasis is given to applications in the life sciences This course is recommended for students in the life sciences and those preparing for the physics part of the MCAT.
347	PHYS 303V	Energy and Society in the New Millennium	F	Traditional and alternative sources of energy. Contemporary areas of concern such as the state of depletion of fossil fuels; nuclear energy, solar energy, and other energy sources; environmental effects; nuclear weapons; and health effects of radiation. Discussion of physical principles and impact on society. Focus on scientific questions involved in making decisions in these areas. No physics background required.
348	PHYS 305V	The Search for Water in the Solar System	R	Examines the formation, abundance and ubiquity of water in our Solar System stemming from comets, Martian and Lunar poles, Earth's interior and into the outer reaches of the Solar System. Topics will include nuclear synthesis, Solar System formation, remote sensing, as well as past, present and future NASA missions for water.
349	PLAN 275	Environment/Water Management	F	Management operation and interrelationships of the environment, including the natural processes associated with land, water, and air.
350	PSY 201G	Introduction to Psychology	R	Methods and principles of behavior. Topics include human evolution and development, biopsychology, perception, learning, thinking, motivation, social interaction, and the diagnosis and treatment of abnormal behavior.
351	RGSC 294	Rangeland Resource Management	F	Overview of arid and semi-arid ecosystems in the US and abroad, rangeland plant physiology, ecology of rangeland plant communities and ecosystems, sustainable management for multiple uses including grazing livestock production, wildlife habitat, recreation and ecosystem services, and economics of rangeland-based enterprises. Restricted to: Main campus only.
352	RGSC 294 L	Rangeland Resource Mgmt Laboratory		Application and determination of management techniques for stocking rates, range sites, range improvements, and plant identification of desirable and noxious plants.
353	SOC 201G	Contemporary Social Problems	R	Introduction to the fundamentals of social analysis through the analysis of contemporary American social problems. Emphasis on methods of analysis and cross-national comparisons showing that the social problems studied are common to all societies. Covers racism, violence, poverty, crime, health care, and substance abuse.
354	SOC 360V	Introduction to Population Studies	R	Determinants and consequences of changes in fertility, mortality and migration patterns. Introduction to techniques of demographic analysis. Focus on U.S. and world population issues and their relation to social, cultural, and economic systems.



355	SOC 362	Urban Society in a Global World: Problems Prospects and Promises	F	Identification and analysis of the causes and consequences of social issues in urban environments including poverty, crime, terrorism, urban social policy, suburban flight, disinvestment, and deindustrialization. Special emphasis on global forces affecting global urban environments around the world.
356	SOC 366	Society and Technology	R	Examines the social dynamics shaping technological form and utilization as well as the impacts of technology and socio-technical systems upon society. Topics include: the historical role of technology in socio-cultural evolution, technology and contemporary social change, technological risks and risk management, technology and politics, and the contradictory effects of technology in contributing to and alleviating environmental degradation.
357	SOC 369	The Challenge of Sustainable Development	F	This course will examine the various controversies surrounding sustainable development based on the three components of sustainable development: social equity, environment, and economics. Efforts to achieve sustainable development and the issues involved will be examined at both the local, community level up to the global level.
358	SOC 430	Social Movement Theory	R	Overview of key theories in past and present social movement research. Includes a focus on rational or spontaneous choice theories, resource mobilization, and new social movement theories. Theoretical perspectives focus on analyses of case studies including womens movement, civil rights, and environmental movements.
359	SOC 465V	Environmental Sociology	F	Advanced examination of societal responses to environmental problems including social adjustments to natural and technological hazards, sociocultural aspects of technological risk and impact assessment, and emergence of environmental social movements.
360	SOC 479	Sociology Perspectives on the US Mexico Border	R	Theoretical perspectives and current research on the U.S.-Mexico border region, including topics such as migration, identity, health, gender, and environment.
361	SOC 565	Environmental Sociology	F	Advanced examination of societal responses to environmental problems including social adjustments to natural and technological hazards, sociocultural aspects of technological risk and impact assessment, and emergence of environmental social movements.
362	SOIL 252	Soils	F	Origin, classification, morphology, and physical, chemical, and biological properties of soils.
363	SOIL 252 L	Soils Laboratory		Morphological, chemical, physical and biological properties of soil in the laboratory and field.
364	SOIL 312	Soil Management and Fertility	R	Management, conservation, and fertility of soils; physical conditions affecting growth, nutrition, and plant production.
365	SOIL 312 L	Soil Management & Fertility Laboratory	F	Hands-on experience. Includes field trips, videos, calculations, visiting lecturers and other lab activities as possible.
366	SOIL 370	Environmental Soil Science	F	Continuation of SOIL 252 that emphasizes soil properties and processes that directly relate to environmental pollution problems.
367	SOIL 424	Soil Chemistry	F	Basic elements of soil chemistry including clay mineralogy, cation and anion exchange and the chemistry of problem (acid, saline and flooded) soils.
368	SOIL 456	Irrigation and Drainage	F	Principles and practices required for irrigation to exist as a permanent economy. Equipment and methods for measurement and control of water.
369	SOIL 472	Soil Morphology/Classification	R	Terminology used to describe soils. Soil classification systems of the world with emphasis on systems used in the United States. Theory of classification and taxonomy as applied to soils.
370	SOIL 476	Soil Microbiology	R	Nature and physiology of soil microorganisms, how they affect plant growth and recycle nutrients. Land farming, bioremediation and other environmental problems as influenced by soil microorganisms.
371	SOIL 476 L	Soil Microbiology Laboratory		Laboratory for nature and physiology of soil microorganisms, how they affect plant growth and recycle nutrients.
372	SOIL 477	Soil Physics	R	A description of the physical characteristics of porous media including soil. Examination of processes describing the transport of water, chemicals, heat and gases through porous media with application to environmental quality, waste management, and crop production.
373	SOIL 477 L	Soil Physics Laboratory	F	Concurrent enrollment with SOIL 477 recommended. Hands on experience with techniques for characterizing soil physical properties such as particle size distribution, bulk density, water retention, hydraulic conductivity and solute transport. Demonstrations of field and laboratory techniques for measuring moisture content, soil water potential, gas/air flow and thermal conductivity.
374	SOIL 479	Environmental Soil Chemistry	F	Basic elements of soil chemistry including discussion of clay mineralogy, cation and anion exchange and the chemistry of problem (acid, saline and flooded) soils.
375	SOIL 551	Advanced Soil Chemistry	R	Advanced treatment of soil chemistry phenomena with emphasis on arid zone soils. Particular attention is given to reactions involved in environmental pollution and management of wastes.
376	SOIL 630	Advanced Soil Classification	R	Philosophy and organization of various soil classification systems, some international in scope, with emphasis on the new USDA system and classroom and field experience in using this system.
377	SOIL 652	Advanced Soil Physics	R	Advanced treatment of soil physics, modeling, includes working on an existing/new research project, modeling existing or new data, step by step guide on the use of some 1-D and 2-D models. Specific areas of specialization will be field scale variability of soil properties, water flow, solute transport, and plant water relations.

378	SP M 451	Adv Exercise Physiology	R	Detailed study of the integrated response of neuromuscular, cardiovascular, and respiratory systems to acute and chronic exercise, nutrition, and environmental conditions with a strong emphasis on laboratory experiences.
379	SUR 452	Land Development Design	R	Covers different phases of land development process. Study of New Mexico subdivision and condominium laws. Site evaluation includes boundary, control topographic surveys, and environmental and cultural considerations. Students design lot and building arrangements and streets.
380	WERC 200	Introduction to Environmental Fundamentals	F	Continued application of weld bead patterns and structural welded joints.
381	WERC 300	Introduction to Pollution Prevention and its Application	F	Investigates various approaches to industrial and domestic pollution prevention, waste minimization, and energy efficiency with emphasis on applications in the Southwest. Topics include: industrial case studies, energy conservation, environmental risk analysis, evaluating environmental performance, pollution prevention program development, training and education programs, funding sources, and economic impact.
382	WERC 330	Environmental Management Seminar I	F	Survey of practical and new developments in environmental management field, hazardous and radioactive, waste management, energy, water, and related health issues, provided through a series of guest lectures and reports about on-going research.
383	WERC 350	Introduction to Energy, Environment, and Risk Assessment	F	Presents the fundamentals of risks/benefits in energy and environmental issues. Also presents fundamentals of environmental, radiological and ecological risks from an applied perspective.
384	WERC 381	Renewable Energy Technologies	F	Renewable energy systems, including topics in thermal-solar, photovoltaic, wind, geothermal systems, and other current topics. Theory, practical applications, safety considerations and the economics of alternative renewable energy systems compared to conventional systems.
385	WERC 382	Solar Energy Technologies	F	Solar energy technologies, including topics in passive, solar thermal, and photovoltaic systems. Theory, practical applications, safety considerations and the economics of solar renewable energy systems compared to conventional systems.
386	WERC 384	Wind and Water Technologies	F	Wind and Water energy technologies, including topics in small and large scale systems. Theory, practical applications, safety considerations and the economics of wind and water renewable energy systems compared to conventional systems.
387	WERC 386	Sustainable Construction and Green Building Design	F	Sustainable Building materials, methods, and techniques including green architect and design, codes, standards and specifications.
388	WERC 430	Environmental Management Seminar II	F	Survey of practical and new developments in environmental management fields, hazardous and radioactive waste management, energy, water and related health issues, provided through a series of guest lectures and reports about ongoing research.
389	WERC 471	Health Physics	F	Introduction to radiation protection, radiation/radioactivity, radioactive decay/fission, interaction of radiation and matter, biological effects of radiation, radiation measurement/statistics, sampling for radiation protection purposes, radiation dosimetry, environmental transport, radiation protection guidance, external radiation protection, internal radiation protection, waste management, and hazards analysis and control.